

Title (en)  
HEAT PUMP AIR CONDITIONING SYSTEM AND ELECTRIC AUTOMOBILE

Title (de)  
WÄRMEPUMPENKLIMAAANLAGENSYSYSTEM UND ELEKTRISCHES FAHRZEUG

Title (fr)  
SYSTÈME DE CLIMATISATION À POMPE À CHALEUR ET AUTOMOBILE ÉLECTRIQUE

Publication  
**EP 3453544 A4 20190522 (EN)**

Application  
**EP 17795476 A 20170503**

Priority  
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• CN 2017082949 W 20170503

Abstract (en)  
[origin: EP3453544A1] This disclosure discloses a heat pump air-conditioning system and an electric vehicle. The system includes a Heating Ventilation and Air Conditioning (HVAC) assembly, a compressor, and an outdoor heat exchanger, where the HVAC assembly includes an indoor condenser, an indoor evaporator, and a damper mechanism, the damper mechanism is used for selectively opening a ventilation channel of the indoor condenser and/or a ventilation channel of the indoor evaporator, an outlet of the compressor is in communication with an inlet of the indoor condenser, an outlet of the indoor condenser is in communication with an inlet of the outdoor heat exchanger selectively through a first throttle branch or a first through-flow branch, an outlet of the outdoor heat exchanger is in communication with an inlet of the indoor evaporator selectively through a second throttle branch or a second through-flow branch, an outlet of the indoor evaporator is in communication with an inlet of the compressor, the outlet of the indoor condenser is in communication with the inlet of the compressor through a third throttle branch that is selectively open or closed, and the outlet of the outdoor heat exchanger is in communication with the inlet of the compressor through a fourth throttle branch that is selectively open or closed. Therefore, effects, such as improving heating energy efficiency and satisfying a defrosting requirement, can be achieved.

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Citation (search report)  
• [A] JP 2012020599 A 20120202 - TGK CO LTD  
• [A] DE 102010016588 A1 20111124 - IPETRONIK GMBH & CO KG [DE]  
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• [A] CN 202200801 U 20120425 - SHANGHAI SHUANGHUA INDUSTRY & TRADE CO LTD  
• See references of WO 2017193858A1

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